

Amendments to the Claims:

Claim Listing:

- AS b7D*
1. (currently amended) A method for distilling a raw material liquid containing (meth)acrylic acid substantially free from azeotropic solvents, which comprising comprises; subjecting gas phase catalytic oxidation reaction of propylene and/or acrolein with a molecular oxygen-containing gas or by gas phase catalytic oxidation reaction of at least one selected from the group consisting of isobutylene, t-butyl alcohol and methacrolein with the molecular oxygen-containing gas to form a mixed gas; feeding the resulting mixed gas to a (meth)acrylic acid collection column wherein materials containing (meth)acrylic acid are collected with a collection agent; and feeding to a distillation column the raw material liquid which temperature is substantially equal to that of an entrance place in the column to distillate; and distilling the raw material liquid in the distillation column.
 2. (original) A method according to claim 1, wherein a concentration in the raw material liquid is not less than 85% by weight, based on the weight of the liquid.
 3. (currently amended) A method according to claim 1, wherein the distillation column is at least one selected from the group consisting of an azeotropic distillation column for a (meth)acrylic acid solution collected by the collection agent; an aldehyde distillation column for the raw material liquid treated by an aldehyde treating agent; and a distillation column for separating high boiling point materials for the raw material liquid.
 4. (original) A method according to claim 1, wherein a temperature of the raw material liquid is adjusted by heating or cooling.
 5. (currently amended) A method according to claim 1, wherein a temperature of the raw material liquid to be fed (T_0) and a temperature of the entrance place in the distillation column (T_1) fulfill the following formula (1a):
$$0^\circ \text{C} \leq T_0 - T_1 \leq 30^\circ \text{C} \quad (1a).$$
 6. (currently amended) A method according to claim 1, wherein a temperature of the

raw material liquid to be fed (T0) and a temperature of the entrance place in the distillation column (T1) fulfill the following formula (1b):

$$0^\circ \text{ C} \leq T_0 - T_1 \leq 20^\circ \text{ C} \quad (1b).$$

7. (currently amended) A method according to claim 1, wherein a temperature of the raw material liquid to be fed (T0) and a temperature of the entrance place in the distillation column (T1) fulfill the following formula (1c):

$$0^\circ \text{ C} \leq T_0 - T_1 \leq 10^\circ \text{ C} \quad (1c).$$

8. (original) A method according to claim 1, wherein a fluctuation range (ΔT_0) of temperature (T0) of the raw material liquid is within 10° C .

9. (original) A method according to claim 1, wherein a fluctuation range (ΔT_0) of temperature (T0) of the raw material liquid is within 5° C .

10. (original) A method according to claim 1, wherein a fluctuation range (ΔT_0) of temperature (T0) of the raw material liquid is within 3° C .

11. (original) A method according to claim 4, wherein the heating or cooling is performed by a heat exchanger.

12. (original) A method according to claim 4, wherein the heating or cooling is performed based on the result that a temperature of the entrance place in the column is measured.

13. (original) A method according to claim 1, wherein a temperature of the raw material liquid to be fed to the column is lower than that of a bottom part in the column.

14. (currently amended) A method according to claim 1, wherein the raw material liquid is divided into two or more separate streams, and then fed to the distillation column.

15. (original) A method according to claim 1, wherein the collection agent is water or a process wastewater.

16. (currently amended) A method according to claim 15, wherein (meth)acrylic acid is recovered the raw material liquid is distilled employing an azeotropic solvent by separating to separate the collection agent therefrom.

17. (original) A method according to claim 16, wherein the azeotropic solvent is at

least one selected from the group consisting of diethyl ketone, methyl propyl ketone, methyl isobutyl ketone, methyl-t-butyl ketone, n-propyl acetate, toluene, heptane, and methylcyclohexane.

18. (original) A method according to claim 1, wherein the column is maintained under the following conditions:

Operation pressure: 10 to 400 hPa

Top temperature of the column: 45° C to 110° C

Temperature at which the raw material liquid is fed to the entrance place in the column:
40° C to 120° C

Bottom temperature: 50° C to 190° C

Reflux ratio: 0.1 to 5.